

Complete each of the following. Show your work and circle your final answer on all problems.

4. At constant pressure, the volume of a gas is increased from 150.0 L to 300.0 L by heating it. If the original temperature of the gas was 20.0 °C, what will its final temperature (in Kelvins) be?
5. A quantity of gas is collected over water at 15 °C. The manometer indicated a pressure of 24.0 kPa. What would be the pressure of the dry gas?
6. How many liters of pure oxygen at STP is consumed by a human being in 24 hours if the human body requires daily energy that comes from metabolizing 816 grams of sucrose (C₁₂H₂₂O₁₁)?

